State Of California The Resources Agency of California

Memorandum

Date: September 25, 2000
Telephone: (916) 653-1245

File: 00-AFC-3

To: Commissioner Robert Pernell, Presiding Member
Commissioner Michal C. Moore, Ph.D., Associate Member

From: California Energy Commission - James W. Reede, Jr.
1516 Ninth Street
Sacramento, CA 95814-5512
Siting Project Manager

Subject: **NUEVA AZALEA POWER PLANT PROJECT ISSUES IDENTIFICATION REPORT**

Attached is the staff s Issue Identification Report for the Nueva Azalea Power Plant Project proposal (00-AFC-3). This report serves as a preliminary scoping document that identifies the issues that the Energy Commission staff believes will require careful attention and consideration.

Energy Commission staff will present the issues report at the Siting Committee s scheduled Informational Hearing on October 2, 2000, at the City of South Gate Municipal Auditorium, located at 4900 Southern Avenue in South Gate, California.

cc: Docket (00-AFC-3)
Proof of Service List

Attachment

JWR:jr Nueva Azalea Issues Report

NUEVA AZALEA POWER PLANT PROJECT

(00-AFC-3)

September 25, 2000

ISSUES IDENTIFICATION REPORT

CALIFORNIA ENERGY COMMISSION

Energy Facilities Siting and Environmental Protection Division

ISSUE IDENTIFICATION REPORT
NUEVA AZALEA POWER PLANT PROJECT
(00-AFC-3)

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ISSUES IDENTIFICATION REPORT

California Energy Commission Staff

PURPOSE

This report has been prepared by the California Energy Commission staff to inform the Committee and all interested parties of the potential issues that have been identified in the case thus far. These issues have been identified as a result of our discussions with federal, state, and local agencies, and our review of the Nueva Azalea Power Plant Project Application for Certification (AFC), Docket Number 00-AFC-3. The Issue Identification Report contains a project description, summary of potentially significant environmental issues, and a discussion of the proposed project schedule. The staff will address the status of issues and progress towards their resolution in periodic status reports to the Committee.

PROJECT DESCRIPTION

On March 8, 2000, EM-One Power Station, Limited Liability Company (the applicant) filed an Application for Certification (AFC) for the Nueva Azalea Power Plant Project. EM-One Power Station is jointly owned by Sunlaw Energy Corporation and Sunlaw Energy Partners I, LP.

The Nueva Azalea Power Plant Project will be a nominal 550-megawatt (MW), natural gas-fired combined cycle power plant. The applicant intends to locate the project on a 13.5-acre site in the City of South Gate at the eastern edge of the city limits. The site is bound by Southern Avenue on the north, East Frontage Road of the 710 Interstate Freeway on the west, Garfield Avenue and Miller Way on the east, and other developed industrial properties on portions of the south, east and west.

The main power facilities for the project will contain two power islands, an electrical switchyard, administrative buildings, chemical storage areas, cooling towers and other support facilities. Natural gas will be supplied to the project via a new pipeline of approximately one (1) mile in length. The water supply source for the plant cooling towers will be from an existing reclaimed water supply. The water supply source necessary for the electric generating cycle (steam) will be purchased from the City of South Gate and will use approximately 2.5 percent of the total volume of potable water used each year in the City of South Gate.

The Applicant has identified eight transmission options with the preferred alternative requiring approximately 1000 feet of new 230 KV transmission lines to be built to interconnect the project at the Southern California Edison Mesa and Redondo substations.

The project is estimated to have a capital cost of approximately $256 million. The applicant plans to complete construction and start operation of the combined cycle unit in the second quarter of 2003. During construction, up to approximately 391

construction jobs will be created over the 20-month construction schedule. A permanent professional workforce of approximately 33 people will operate the plant.

New connections to the existing adjacent SCE-owned 230 (kV) switchyard would be added as part of the proposed project.

POTENTIAL MAJOR ISSUES

This portion of the report contains a discussion of the potential issues the Energy Commission staff has identified to date. The Committee should be aware that this report might not include all of the significant issues that may arise during the case. Discovery is not yet complete, and other parties have not had an opportunity to identify their concerns. The identification of the potential issues contained in this report is based on our judgement of whether any of the following circumstances will occur:

- Potential significant impacts which may be difficult to mitigate;
- Potential areas of noncompliance with applicable laws, ordinances, regulations or standards (LORS);
- Areas of conflict or potential conflict between the parties; or
- Areas where resolution may be difficult or may affect the schedule.

The following table lists all the subject areas evaluated and notes those areas where critical or significant issues have been identified. Even though an area is identified as having no potential issues, it does not mean that an issue will not arise related to the subject area.

For example, disagreements regarding the appropriate conditions of certification may arise between staff and applicant that will require discussion at workshops or even subsequent hearings. However, we do not currently believe such an issue will have an impact on the case schedule or that resolution will be difficult to achieve.

Major Issue	Subject Area	Major Issue	Subject Area
Yes	**Air Quality**	No	Paleontological Resources
Yes	**Alternatives**	No	Project Overview
No	Biological Resources	**Yes**	**Public Health**
No	Cultural Resources	**Yes**	**Environmental Justice**
No	Efficiency and Reliability	No	Soils
No	Electromagnetic Fields & Health Effects	**Yes**	**Traffic and Transportation**
No	Facility Design	No	Transmission Line Safety
No	Geology	No	Transmission System Engineering
No	Hazardous Materials	**Yes**	**Visual Resources**
No	Industrial Safety and Fire Protection	No	Waste
No	Land Use	**Yes**	**Water Resources**
No	Noise	No	Socioeconomics

This report does not limit the scope of staff s analysis throughout this proceeding, but acts to aid in the analysis of potentially significant issues that the Nueva Azalea Power

Plant proposal poses. The following discussion summarizes each potential issue, identifies the parties needed to resolve the issue, and where applicable, suggests a process for achieving resolution. At this time, staff does not see either of these potential issues as non-resolvable.

Staff issued Data Requests on September 11, 2000, addressing many of these issues due to the timing of this proceeding. A Data Request Workshop was held September 20, 2000, to clarify what responses are to be made on October 11, 2000.

AIR QUALITY ISSUES

The Air Quality (AQ) analysis deals with air pollutants for which the Air Resources Board (ARB) and/or the U.S. Environmental Protection Agency (EPA) have established ambient air quality standards, i.e. criteria pollutants. The Nueva Azalea project, as proposed, will be one of the cleanest power plants in California in relation to NO_x, SO_x, CO, and VOC. However, there are potentially several significant issues that may create problems in the licensing process, which may be magnified due to the fact that this project would be located in an area with a dominant representation of minorities and low income groups. Staff sees a number of major air quality issues that could affect the Nueva Azalea Power Plant Project schedule. A major concern is the Applicant s proposal to substitute VOC s for PM 10 offsets. Any of the issues listed could result in significant project delays if not addressed immediately. It is especially critical to the resolution of these issues that the Applicant provide staff with sufficient and accurately detailed information to complete an analysis.

The applicant is proposing to offset direct Particulate Matter (PM10) emissions using volatile organic compounds (VOC's) Emission Reduction Credits (ERCs). Interpollutant offsets are allowed in the SCAQMD's rules and it may be the only option available for the applicant because there are insufficient PM10 banked offsets available in the air basin. However, this may create a problem if the Air Quality analysis indicates that there is a disproportional and substantial adverse PM impact in the area surrounding the facility. In this case, VOC ERCs may not eliminate or alleviate this disproportional local impact. In previous cases, such as Crockett and Los Medanos, staff asked for the applicant to exert its best efforts to locate or create ERCs in the area where the power plant would be located. Staff will ask the applicant for this project to do the same with respect to local PM10 offsets. This may create a problem of timing since the creation of PM10 offsets may take a considerable amount of time.

The Applicant s construction impact analysis suggests the potential for significant adverse impacts. This analysis may overestimate impacts by a significant margin. If the impacts are above the ambient air quality standards, CEC and SCAQMD staff will require mitigation of these temporary impacts to the extent feasible. Staff will ask the applicant to refine their construction impact analysis to estimate impacts.

PM impacts from cooling towers were estimated using an air dispersion model that is not suitable to model cooling towers. The model assumes that the droplets behave as a gas, when in reality, it is well known that due to their weight they are far from behaving in such a manner. In addition, the PM emissions from cooling towers may be severely overestimated. For these reasons, CEC staff will refine the analysis to properly estimate PM impacts from cooling towers. Staff hopes to have this analysis done before the publication of the Preliminary Staff Analysis, however, it is possible that this modeling analysis will not be ready before that time.

The determination of representative ambient air quality conditions in the South Gate area may be a contentious issue during the siting process. The applicant has measured ambient air quality conditions for about a week in December 1999 at the site where the power plant would be located. Currently, this site is utilized as a truck depot and tractor/trailer parking site. The air quality data suggests that PM10 ambient concentrations at this site are higher than measurements taken during the same sampling period in the closest monitoring stations maintained by SCAQMD. This may be due to the high contribution by the heavy-duty diesel trucks being serviced and coming in and out of the transfer site. The highly disproportional contribution of diesel trucks to PM emissions in California is well documented. The data, however, also suggests that the relocation of the transfer facility may reduce ambient PM10 conditions at the site. On the other hand, the data may not be suitable to establish representative ambient air quality conditions in the South Gate area because the sampling may have been heavily contaminated by emission from the diesel trucks.

New facilities, including power plants, must operate for a short period of time without their air pollution control system to make sure that there is no danger of damaging such system. Also there is a testing and calibration period for the entire power plant when emissions are usually much higher than the permitted levels under normal operation. Establishing permitted levels or permit conditions that would allow the "commissioning" of the power plant may be a challenge considering the relatively high background CO and NO_2 concentrations measured in the Los Angeles area.

Staff will be working with the South Coast Air Quality Management District, Applicant, Intervenors and other agencies to address these issues.

PUBLIC HEALTH

The potential exists for significant adverse cumulative PM impacts from the proposed project and other existing sources. A mixture of industrial, commercial and residential developments, as well as a major freeway that passes adjacent to the proposed site, characterizes the existing environment. Additionally, there are a considerable number of toxics releasing facilities, Superfund sites, and toxic waste treatment, storage, or disposal facilities in the vicinity of the proposed project.

This community is considered the center of non-abatement in the Los Angeles air basin by the SCAQMD. The MATES II study by the South Coast Air Quality Management Control District published in March 2000 shows that local residents are currently exposed to higher levels of air contaminants than those in surrounding communities are.

This community has also endured major toxics releases causing injury and school closures in the past. The proposed project s immediate impact area encompasses three schools, a regional medical facility and numerous other sensitive receptors.

The community has been previously identified in various reports as having higher than normal rates of respiratory problems such as juvenile asthma.

Members of the local community have expressed concerns that operation of the proposed power plant would adversely impact the health of the people in the area, the vast majority of whom are minority and/or low-income.

The residents of the Southeast Los Angeles area, including South Gate, are over 80 percent minority for whom there is concern about inequitable air toxic and air pollutant exposures. The community around the project area has the perception that it is disproportionately exposed to environmental pollution from the presence of specific sources in the area.

The community is concerned that any additional pollution would not be mitigated locally and therefore that the impacted area s health and environment will deteriorate further. Staff will be working with the South Coast Air Quality Management District, Applicant, Intervenors and various other agencies to address these issues.

TRAFFIC AND TRANSPORTATION

The area surrounding the site is heavily congested with truck traffic. Concerns have been raised regarding the impact of additional trips caused by construction employees, the installation of water and gas pipelines in the surrounding thoroughfares and the disruption of normal flow patterns. The use of the only ingress / egress, East Frontage Road, to the Thunderbird Mobile Home Park, will be impacted severely due to project construction. This raises staff concern due to the frequency of emergency services to the large concentration of senior citizens at the mobile home park. The condition of the roadway accessing the plant was observed by staff to be in a state of severe disrepair and will require deep resurfacing after construction of the pipelines. Staff will be working with the Applicant, city staff and other agencies to address these issues.

VISUAL RESOURCES

Staff and other agencies are concerned that proximity of the plant to Interstate 710 and its location in an urban area may result in potentially unmitigable visual and highway safety impacts.

The proposed power plant has the potential to cause significant visual impacts due to project-created vapor plumes. According to Applicant data, vapor plumes of over 300 in height and 600 in length could be anticipated approximately half of the time on an annual basis. Such plumes thus have the potential to be a prominent, frequent feature in the landscape within a viewshed densely populated with viewers of varying degrees of visual sensitivity, including motorists on the Long Beach Freeway and numerous residential viewers located within foreground distances of the project. For these viewers, both the project and project plumes would become a visually dominant feature of the landscape. Viewer response and sensitivity to prominent vapor plumes is likely to

vary; however, such plumes are generally perceived as being associated with industrial processes and could be perceived as an adverse visual intrusion by some viewers. If visual impacts due to vapor plumes in fact occur, they may be able to be mitigated with existing technology.

Substantial new plant lighting, if not fully mitigated, has the potential to have adverse effects on the nighttime visual environment of the vicinity, due to direct illumination or glare on off-site viewers; or to nighttime light pollution (i.e., backscatter or reflected light visible in the night sky under certain conditions). Such effects are of particular concern with regard to nearby residents, a large number of whom are located at very close distances to the proposed plant. A determination of whether significant impacts exist would depend on a description of anticipated project night lighting, including descriptions of any specific measures (shielded lighting; directed lighting; reduced lighting; lighting activated on as-needed basis; etc.) proposed to mitigate such effects. The Applicant has proposed to submit such a lighting plan. If visual impacts due to new night lighting do potentially exist, they can be substantially mitigated with shielded, directed lighting and other available measures as discussed.

The Applicant proposes to illuminate the canopies enclosing the power plants with decorative nighttime uplighting. Because these canopies would be a prominent new feature in the views of nearby residents and freeway motorists, such uplighting would potentially represent an adverse impact depending upon the proposed intensity of lighting and the proposed hours of operation. Such potential impacts would be mitigable with the use of appropriate light fixtures and operation regimes.

The Applicant has taken the approach of designing the proposed power plant in an attractive manner rather than attempting to reduce its visibility. Staff does not take issue with this approach in principle. However, for many residents located at very close foreground distances, the new plant will be an extremely prominent, dominating new feature of the setting, contrasting very strongly in scale and character with existing residential settings and imposing at least some degree of industrial character due to prominent vapor plumes. These effects could potentially represent significant visual impacts upon nearby residents. In this context it may be appropriate to incorporate off-site screening measures such as tree planting to reduce the visually dominating presence of the power plant in near-foreground residential views. It is likely that potentially significant impacts could be mitigated to less than significant levels with the inclusion of such off-site screening measures in the appropriate locations. Staff will work with the Applicant, Federal Highway Administration, CalTrans, Intervenor and other agencies to resolve this issue.

WATER RESOURCES

As proposed, the Nueva Azalea Power Plant may require up to 5,500 acre-feet of water per year. Approximately 99 percent of this water will be used for steam, cooling or clean-up purposes (AFC, p.3-24, Tables 3.4-1 & 3.4-1A). The applicant has proposed to use high quality water to supply the steam, clean-up and other on-site water needs of the power plant. This high-quality water, to be supplied by the City of South Gate, would constitute approximately 2.5% of the city's annual usage. The applicant is proposing to use reclaimed water for the cooling tower make-up.

Staff believes that project use of potable water from the city is a potentially significant issue and will be evaluating potential impacts associated with using this volume of water. Given the possibility that these potential impacts could be significant, the Applicant needs to evaluate alternative cooling technologies, such as dry or wet/dry cooling, and alternative sources of steam cycle demand. In addition, staff will be evaluating opportunities for water conservation to reduce overall project water demand and discharge. Staff will be working with the local Water Districts, Applicant and other water regulatory agencies to address these issues.

ENVIRONMENTAL JUSTICE

The demographics for the 19 city Southeast Los Angeles area, including South Gate, the proposed site for the Nueva Azalea project, are over 80 percent minority. The community surrounding the project area has the perception that it has experienced and is experiencing a disproportionate adverse environmental, economic, and health impacts related to existing industrial and commercial development.

Members of the local community have expressed concerns that the proposed power plant will have a adverse impact on the people in the local area, the vast majority of which are minority and/or low-income. The existing environment is characterized by a mixture of industrial, commercial and residential development, as well as a major freeway passing through the area by the proposed site. In addition, there are a considerable number of toxic release facilities, Superfund sites, and toxic waste treatment, storage, or disposal facilities in the vicinity of the proposed project. The City of South Gate has identified additional diesel truck firms that have plans to move into the immediate area. The community is also concerned that any additional pollution will not be mitigated locally and therefore the impacted area s environment will deteriorate further. The MATES II study by the South Coast Air Quality Management Control District published in March 2000 shows that local residents are currently exposed to high levels of toxic air contaminants. Staff will work with the Applicant, Intervenor, city staff and community groups to address this issue.

ALTERNATIVES ISSUE

Staff has not completed its analysis of the proposed Nueva Azalea project and has not concluded that there are potentially significant impacts in the areas of air quality, noise, public health, socioeconomics, visual resources, water resources and other areas. Local residents have expressed particular concerns that the proposed power plant will have adverse impacts on minority and/or low-income residents in the local area.

Staff plans to assess the options for alternative sites in the Los Angeles area that could avoid or reduce any significant impacts we may identify from our analysis. We plan to discuss alternative site possibilities with the planning and community development staffs in Los Angeles County and various cities within the county. Keeping in mind the applicant s need for a minimum 12-acre site plus temporary acreage for a construction laydown area, staff s alternative analysis will include:

- review of the alternative sites proposed by the applicant in the AFC;
- review of any sites suggested by local agencies or members of the public;

- expansion of the existing Sunlaw power plants in Vernon; and
- vacant or unused parcels suitable for a heavy industrial use in the L A area.

SCHEDULING

Timely provision and resolution of the ERCs is critical to the schedule of this project. These must be provided by October 20, 2000, to allow the SCAQMD to prepare their PDOC on time. Resolution of any environmental justice issues may also impact the schedule.

The U.S. EPA expects an Environmental Justice analysis from the local air quality districts as part of their delegated federal permits. Staff will strive to have only one Air Quality Environmental Justice analysis that would meet the requirements of all the agencies. For this reason, staff will coordinate with the South Coast Air Quality Management District (SCAQMD). It is unknown if this would create problems with the schedule and timing for this project. However, staff will work diligently to avoid conflicts with the schedule.

As of September 14, Southern California Edison had the authorization to begin a Detailed Facilities Study. This estimated 90-day study plus the 4 to 6 week review by the California Independent System Operator has the potential to delay review and analysis to some point beyond the staff s proposed issue date for the FSA.

The Energy Commission is currently reviewing 14 Applications for Certification for power plant projects, an SPPE and expects to receive another 4 AFC s in the next two months. Staff is experiencing a significant staffing workload problem and has recently hired a consultant team to help with the peak workload. In light of the issues and the workload, staff believes that it will be challenging to meet a 12-month schedule. Staff s proposed 12-month schedule is attached.

STAFF PROPOSED SCHEDULE

NUEVA AZALEA POWER PLANT PROJECT (00-AFC-3)

DATE	EVENT
3/08/00	Nueva Azalea Power Plant Project AFC Filed
8/09/00	Energy Commission Deems AFC Complete
9/11/00	Staff Files Data Requests
9/20/00	Data Request Workshop
9/25/00	Staff Files Issue Identification Report
10/2/00	Information Hearing, Issue Scoping and Site Visit
10/11/00	Data Responses Due from Applicant
10/18/00	Data Response Workshop
10/20/00	All Emission Reduction Credit documentation due to SCAQMD and CEC
11/1/00	2nd Round Data Request Workshop
12/4/00	Southern California Edison completes Facility Study for Interconnection
12/5/00	SCAQMD Files Preliminary Determination of Compliance
12/6/00	Applicant Files complete Products for all studies, permits or determinations.
	2nd Round Data Response and Issue Resolution Workshop
1/22/01	Cal ISO files recommendations regarding Transmission Line Interconnection Study and Facility Study
1/22/01	Staff Files Preliminary Staff Assessment (PSA)
2/02/01	SCAQMD Files Final Determination of Compliance (DOC)
3/07/01	Staff Files Final Staff Assessment (FSA)
3/19/01	Start Hearings
4/03/01	Conclude Hearings
6/08/01	Committee issues Draft Presiding Member s Proposed Decision (PMPD)
7/03/01	Committee Conducts Hearings on (PMPD)
8/08/01	Adopt Decision on PMPD
8/15/01	Executive Director Files Notice of Decision